

Attorney Docket No. P66870US1  
Application No. 10/725,679

**Amendments to the claims:**

This listing of claims replaces all prior versions, and listings, of claims in the application.

**Listing of claims:**

Claims 1-11 (cancelled)

12 (withdrawn): A chromatographic composite material comprising a support at least partially covered by a hydrophobic polymer containing fluorine moieties obtainable by a process comprising the steps of

- contacting a support with a cross-linkable compound having at least one olefinic double bond until the support at its surface is at least partially covered with the cross-linkable compound, followed by
- fluorination of the support at least partially covered with the cross-linkable compound,
- removal of unreacted material, if any, and
- recovering said composite material.

Attorney Docket No. P66870US1  
Application No. 10/725,679

13 (withdrawn): A chromatographic composite material for separation of DNA and RNA from proteins and other substances comprising a support at least partially covered by a hydrophobic polymer containing fluorine moieties obtainable by a process comprising the steps of

- contacting a support with a cross-linkable compound having at least one olefinic double bond until the support at its surface is at least partially covered with the cross-linkable compound, followed by
- fluorination of the support at least partially covered with the cross-linkable compound,
- removal of unreacted material, if any, and
- recovering said composite material in preparative or analytical scale,

wherein the composite material specifically binds the proteins and other substances but specifically does not bind the DNA and RNA.

14 (withdrawn): The composite material according to claim 12, wherein the support is comprised of a porous inorganic metal oxide.

15 (withdrawn): The composite material according to claim 14, wherein said inorganic metal oxide is selected from the group consisting of oxides of aluminum, titanium, zirconium, silicon, and iron and mixtures thereof.

Attorney Docket No. P66870US1  
Application No. 10/725,679

- 16 (withdrawn): The composite material according to claim 12, wherein said cross-linkable compound is an oligomer of a substituted or unsubstituted diene.
- 17 (withdrawn): The composite material according to claim 16, wherein said oligomer is selected from the group consisting of  $C_4$ - $C_{10}$  olefinic dienes.
- 18 (withdrawn): The composite material according to claim 16, wherein the oligomer is butadiene, isoprene, chloroprene, or piperilene or a mixture thereof.
- 19 (withdrawn): The composite material of claim 16, wherein the averaged molecular weight of the oligomer is in the range of from 2 kD to 300 kD.
- 20 (withdrawn): The composite material according to claim 12, wherein the fluorination is performed with  $XeF_2$  or a mixture of fluorine and nitrogen, or  $XeF_2$  and a mixture of fluorine and nitrogen.
- 21 (withdrawn): A chromatographic column or cartridge at least partially filled with the composite material according to claim 12.

Attorney Docket No. P66870US1  
Application No. 10/725,679

- 22 (withdrawn): A microporous filter material comprising the composite material according to claim 12 embedded in a polymeric matrix.
- 23 (withdrawn): The microporous filter material according to claim 22, wherein said polymeric matrix is a nylon membrane.
- 24 (withdrawn): The composite material according to claim 12 in bulk form for performing fast sample preparations or chromatographic separations of DNA.
- 25 (withdrawn): The composite material according to claim 24, for conducting the separation of DNA from other substances in one step.
- 26 (withdrawn): An item containing the composite material according to claim 12 wherein the item is a chromatographic column or cartridge or a microporous filter material.
- 27 (withdrawn): The item material according to claim 26, in combination with filter materials, reagents and/or buffers, chemicals and/or other devices for performing fast sample preparations or chromatographic separations of DNA and RNA.

Attorney Docket No. P66870US1  
Application No. 10/725,679

28 (currently amended): A method of chromatographic separation comprising applying a source of DNA, RNA, proteins, and the other substances to a chromatographic composite material that specifically binds the proteins and other substances but specifically does not bind the DNA and RNA, wherein the composite material comprises a support at least partially covered by a hydrophobic polymer containing fluorine moieties obtainable by a process comprising the steps of

- contacting a support with a cross-linkable compound having at least one olefinic double bond until the support at its surface is at least partially covered with the cross-linkable compound, followed by
- fluorination of the support at least partially covered with the cross-linkable compound,
- removal of unreacted material, if any, and
- recovering said composite material in preparative or analytical scale.

29 (previously presented): The method of claim 28, wherein separation of DNA and RNA from proteins and other substances is conducted in one step.

Claims 30 and 31 (cancelled).

32 (new): A method of chromatographic separation comprising, in the absence of chaotropic substances, applying a source of DNA, RNA, proteins, and other substances to a

Attorney Docket No. P66870US1  
Application No. 10/725,679

chromatographic composite material that specifically binds the proteins and other substances but specifically does not bind the DNA and RNA, wherein the composite material comprises a support at least partially covered by a hydrophobic polymer containing fluorine moieties obtainable by a process comprising the steps of

- contacting a support with a cross-linkable compound having at least one olefinic double bond until the support at its surface is at least partially covered with the cross-linkable compound, followed by
- fluorination of the support at least partially covered with the cross-linkable compound,
- removal of unreacted material, if any, and
- recovering said composite material in preparative or analytical scale.

33 (new): The method of claim 32, wherein separation of DNA and RNA from proteins and other substances is conducted in one step.